ON A FLESHY LEAF-GALL ON SCRUB OAK.

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On the leaves of *Quercus undulata* var. *wrightii*, growing near Riley's water, at the western base of the Organ Mountains, there were found some large thick fleshy woolly-looking galls, May 14, 1892. The following description is made from them.

Gall.—Measurements of five galls are as follows: Greatest width (measured transversely on leaf), 18, 13, 15, 14, 17 mm.; greatest length (meas. longitudinally on leaf), 17, 17, 14, 22, 21 mm. respectively; greatest thickness, 8, 9, 11, 7, 8 mm. respectively. Gall consisting of a very marked thickening of the leaf, the thickened portion bulging out most conspicuously on the lower side of the leaf, beginning apparently usually about the middle of the leaf and gradually embracing nearly the whole of it, or all but a more or less complete margin; but sometimes situated at one end or in the middle of a leaf. Mostly whitish in color, but with more or less of a reddish-brown tinge, covered with very short and fine woolly pubescence, the extent of the swelling indicated not only by the thickness but also by this pubescence, while the mid rib and side ribs of the leaf are plainly indicated in exaggerated relief on lower surface by the partial or entire absence of the pubescence; ribs not indicated at all on upper surface. Irregular or rounded in outline, more or less flattened on upper surface of leaf, strongly convex and conspicuous on lower surface, the edges of the swelling bounded on lower surface by a hypertrophy of the small net-like veins of the leaf. Sometimes, in a smaller leaf, the lateral edges are embraced in the gall, which in that case bears laterally several of the marginal spines of the leaf appearing as part of the gall, the lateral margin being more or less completely involved in the swelling.

Described from five alcoholic galls. Color noted when freshly picked. Opening the galls disclosed larvae and pupae of a minute hymenopteron (probably a cynipid), enclosed in small smoothly lined ellipsoidal cells, the latter about $\frac{1}{3}$ mm. wide by $1\frac{1}{2}$ mm. long. The cells are mostly in the middle of the gall, and quite closely approximated, about equally distant from the upper and lower sides of the gall (corresponding to the upper and lower sides of the leaf), and with their long axes perpendicular to the surface of the leaf.

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ARCTIA YARROWI IN CANADA. — Although this fine moth has been known for twenty years it appears to be still very rare in collections. The description was based upon a single male from Arizona in collections made by the Wheeler survey in 1871, '72 and '73. Mr. Stretch's description appeared in vol. 5 of the survey reports, chapter 9, pp. 800–802, and the moth is figured on plate 40. It is to be regretted that the altitude was not stated in the text. Among my few Heterocera references I find only one other mention of *yarrowi*, in "Proceedings Davenport acad. nat. sciences", vol. 1, p. 189, where occurs the statement that a pair (♂ ♀) were collected in 1873 "high up above timberline" on Washakie Needle, a mountain in northwestern Wyoming.

Near Laggan, Alberta Province, Canada, during the past seven summers, I have found but five *yarrowi*, 3 ♂ s 2 ♀ s, all of them above timberline on mountains five to six miles east of the British Columbia eastern boundary, at altitudes ranging from 7500 to 8500 feet. My examples differ to some extent on upper surface from the figure on plate 40. On inner margin of primary the two nearly marginal light spots near base of wing are relatively larger than in the figure, and on costal margin the two light spots near base have not the formal squareness shown in the figure but are irregularly rhomboidal. On hind wing the black spot of anal angle is